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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,119	01/16/2004	Narutoshi Hayashi	Q79461	5035
23373	7590	03/22/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			LAVARIAS, ARNEL C	
			ART UNIT	PAPER NUMBER
			2872	
DATE MAILED: 03/22/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/758,119	HAYASHI ET AL. <i>(initials)</i>
	Examiner	Art Unit
	Arnel C. Lavaras	2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 29 November 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3,5 and 12-14 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-3,5 and 12-14 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 3/27/04.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/29/05 has been entered.

### ***Information Disclosure Statement***

2. The various references cited in the PTO-1449 filed 3/27/04 have been lined through, as these citations are substantially duplicates of those citations listed in the PTO-1449 filed 8/5/04. It is noted that the references listed in the PTO-1449 filed 8/5/04 were previously considered, as set forth in the Office Action dated 10/29/04.

### ***Response to Arguments***

3. The Applicants' arguments filed 11/29/05 have been fully considered but they are not persuasive.
4. The Applicants argue that, with respect to Claim 1, WO 96/07941 A1 fails to teach or reasonably suggest the dye being oriented roughly perpendicular to the rubbing direction. The Examiner respectfully disagrees. The Examiner again reiterates those remarks

previously set forth in the Office Action dated 10/29/04. In particular, the *ensemble* of molecules of the dye used for the polarizing films in the various examples of WO 96/07941 A1 clearly align with the rubbing direction in the alignment layer (e.g. PTFE) of the substrate (it is noted that the orientation of the PTFE chains being parallel to the rubbing direction is not in question). As pointed out by Applicants (See Page 3 of Applicants' remarks, filed 11/29/05), a marked difference in absorption, and hence dichroic ratio, in the fabricated films is seen, depending on orientation of the polarization of the incident light with respect to the rubbing direction (See Figures 3-5 of WO 96/07941 A1). However, as previously set forth, this merely establishes the alignment of the absorption axes of the formed dichroic film polarizer, where the major absorption axis is aligned with the rubbing direction of the PTFE film. Again, as previously pointed out, it was noted that though the ensemble of molecules of the dye used for the polarizing films align with the rubbing direction of the alignment layer, the *tabular/planar shape of each molecule* in the dye will inherently lie in planes that are roughly perpendicular to this rubbing direction. Extrinsic evidence of this inherent feature was previously noted in U.S. Patent No. 6563640 to Ignatov et al. (See for example col. 8, lines 15-41 in Ignatov et al.), which discloses dye materials (See for example col. 3, line 26-col. 6, line 52 of Ignatov et al.) similar to that utilized in the instant application, as well as in WO 96/07941 A1.

5. Claims 1-3, 5, 12-14 are rejected as follows.

***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, 12-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-9 of U.S. Patent No. 6965473. Although the conflicting claims are not identical, they are not patentably distinct from each other because U.S. Patent No. 6965473 similarly discloses a polarizing plate (See Claims 1-4 of U.S. Patent No. 6965473) comprising a polarizing layer having a thickness of about 20 nm to 1500 nm formed by rubbing at least one surface of a substrate; coating the rubbed surface of the substrate with an aqueous solution containing a dye having a tabular molecular shape; and drying the solution, wherein the dye having a tabular molecular shape coated on the rubbed surface of the substrate is oriented roughly perpendicular to the rubbing direction. U.S. Patent No. 6965473 additionally discloses a liquid crystal

display device comprising the polarizing plate according to Claim 1 laminated on a liquid crystal cell with the polarizing layer being positioned closer to the liquid crystal cell (See Claim 7 of U.S. Patent No. 6965473); a front polarizing plate is placed on a surface of the liquid crystal cell opposite to the surface on which the polarizing plate is laminated (See Claim 8 of U.S. Patent No. 6965473); and the front polarizing plate is the same as the polarizing plate placed opposite to the liquid crystal cell (See Claim 9 of U.S. Patent No. 6965473).

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 5, 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Andreatta (WO 96/07941 A1), of record.

Andreatta discloses a polarizing plate comprising a polarizing layer (See Page 3, line 4) having a thickness of about 20 nm to 1500 nm formed by rubbing at least one surface of a substrate (See Page 24, “The Alignment Layer and the Preparation Process”, and Page 25, “Preparation Methods”); coating the rubbed surface of the substrate with an aqueous solution (See Page 24, “The Alignment Layer and the Preparation Process”, and Page 25, “Preparation Methods”) containing a dye having a tabular molecular shape (See for example Pages 21-22; Tables 2-1 to 2-4; which discloses perylene-type dye and

anthraquinone-type dye); and drying the solution (See Page 24, "The Alignment Layer and the Preparation Process", and Page 25, "Preparation Methods"), wherein the dye having a tabular molecular shape coated on the rubbed surface of the substrate is oriented roughly perpendicular to the rubbing direction.

The recitation of the manner in which the polarizing layer is formed is recognized as requiring the presence of a rubbed substrate surface, and associated rubbing direction, and as requiring the layer to be a dried, oriented layer of molecules having a tabular molecular shape with the tabular molecular shape oriented "roughly perpendicular" to the rubbing direction. That is, the recitation of the layer as having been coated as "an aqueous solution" is believed to be a process limitation that does not impart any recognizable distinguishing characteristic to the final product.

"Process limitations cannot impart patentability to product claim where product is not patentably distinguished over prior art."  
*In re Dike*, 157 USPQ 581 (CCPA 1968).

It is well-settled that the "[p]resence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product." *In re Stephens*, 345 F.2d 1020 (CCPA 1965), 145 USPQ 565, citing *Dilnot*. In any event, Andreatta discloses solution coating and drying on the rubbed substrate (See Page 24, "The Alignment Layer and the Preparation Process", and Page 25, "Preparation Methods"), and disclose that some of the solutions may be aqueous.

Thus, Andreatta expressly discloses every positively recited structural limitation, and is silent only as to the orientation of the *tabular* molecules. Nonetheless, since Andreatta

discloses the same type of dyes and alignment method, the Examiner has reasonable belief that the tabular molecular shape inherently will be oriented "roughly perpendicular" to the rubbing direction, as recited. If such is not the case, then Applicants should demonstrate that this feature is not inherent. *In re Swinehart*, 169 USPQ 226 (CCPA 1971). That is, the perylenes and anthraquinones of Andreatta may be pendant from the PTFE chain at any of a plurality of sites (at either end of their form), and still be regarded as being oriented "roughly perpendicular" to the PTFE chain (and thus to the rubbing direction).

Additionally, Andreatta discloses that the layer can be on another alignment layer, the other alignment layer comprising polyester (See Page 28, lines 24-28).

Andreatta further discloses a liquid crystal display device (See Figures 1-2) comprising the above polarizing plate (See for example 1, 1' in Figures 1-2) laminated on a liquid crystal cell with the polarizing layer being positioned closer to the liquid crystal cell; a front polarizing plate is placed on a surface of the liquid crystal cell opposite to the surface on which the polarizing plate is laminated (See for example 1, 1' in Figures 1-2); and the front polarizing plate is the same as the polarizing plate placed opposite to the liquid crystal cell (See for example 1, 1' in Figures 1-2).

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnel C. Lavarias  
Patent Examiner  
Group Art Unit 2872  
3/7/06